

Appl. No.: 09/849,551
Amdt. dated 04/18/2005
Reply to Office action of 12/16/04

REMARKS/ARGUMENTS

Applicant would like to thank the Examiner for the thorough review of the present application. Based upon the amendments and the following remarks, Applicants respectfully request reconsideration of the present application and allowance of the pending claims.

The Present Invention

The invention provides for a network usage monitoring module for monitoring network usage at a network access point, i.e. network traffic aggregation point, typically at a gateway device or a similar network interface device. By implementing the monitoring module at the network access point the monitoring is able to occur as transparent to the user devices that are being monitored, i.e., the user devices do not require any re-configuration and/or the execution of additional software in order for the monitoring to occur. In this regard, monitoring can occur surreptitiously to both the user and the user device.

In addition, by providing for the monitoring at the network access point the present invention benefits from the ability to monitor the usage of a number of network users who are attempting to access various network services provided via the access point, i.e., the gateway device. Thus, the usage information collected by the usage monitoring module of the present invention is considerably more robust than that offered by conventional monitoring techniques. This is because the monitoring module is able to aggregate monitoring information from the entirety of the network users or a specific portion of the network users. As such, the information is considerably more valuable to network service providers, network users, network beneficiaries and the like.

The present invention provides for such monitoring by capturing all bytes of data transmitted between user and network services and the responses returned by the network services. Once the data is captured, the usage monitoring module filters the captured packets to extract usage monitoring data therefrom.

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In addition, the usage monitoring method and apparatus of the present invention offers a number of particular features to improve the monitoring process as well as the value of the usage information that is collected.

Claim Amendments

Independent Claims 1, 18 and 22 have been amended to more clearly define and limit the present invention. Specifically, Claims 1, 18 and 22 have been amended to require the usage monitoring module be executed at gateway device disposed at a network access point. Execution of the usage monitoring application may entail capturing all data transmitted from one or more local devices (i.e., client devices), capturing all data transmitted as responses from network services *and/or* filtering the data to extract usage monitoring data therefrom.

The 35 U.S.C. § 102 Claim Rejections

The Examiner has rejected all of the pending claims; Claims 1-43. Claims 1-27 and 29-43 are currently rejected under 35 U.S.C. § 102(e) as being anticipated by United States Patent No. 6,366,298 issued to Haitzuka (the '298 Haitzuka patent).

According to the Examiner, the '298 Haitzuka patent teaches all of the elements of independent Claim 1. Specifically, according to the Examiner, the '298 Haitzuka patent teaches the following:

An apparatus for monitoring communication network usage comprising:

a usage monitoring module (**Monitoring Server 130 of Figure 1**) operating at a network access point (**Data Access network 120**) that captures all request packets transmitted from a plurality of network users and all response packets transmitted from a plurality of network services (**Column 3, lines 1-4**); wherein the usage monitoring module filters the captured packets to extract usage monitoring data therefrom (**Column 6, lines 54-61**); and

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a usage monitoring database (Data Stores 140a-g of Figure 3) in communication with said usage monitoring module that receives the filtered usage monitoring data from the usage monitoring module and stores the data associated with the user request packets and network response packets.

The '298 Haitzuka Patent Does Not Teach or Suggest a Gateway Device Operating at a Network Access Point that Implements a Network Usage Monitoring Module that (1) Captures All Request Packets Transmitted from Network Users, (2) Captures All Response Packets Transmitted from Network Services and (3) Filters the Captured Packets to Extract Usage Monitoring Data.

As amended independent Claims 1 and 18 require a gateway device operating at a network access point that implements a network usage monitoring module that captures all request packets transmitted from network users, captures all response packets transmitted from network services and filters the captured packets to extract usage monitoring data. Independent Claim 22 requires a gateway device operating at a network access point that implements a routine that captures a transmitted data packet and determines if the data packet is a user generated data request packet. The '298 Haitzuka patent does not teach or suggest such a gateway device.

The '298 Haitzuka patent teaches a monitoring system that relies on a client monitoring application running on the host device (100) and a monitoring server (130) that "acts as a recipient of certain information transmitted by the local device" (Column 4, lines 40-41). The monitoring server, in turn, uses the information transmitted from the client monitoring application to "determine information which should be sent to the client application" (Column 5, lines 52-53).

The '298 Haitzuka patent also teaches a data access network (120) that resides between the host devices (100) and the monitoring server (130). The data access network "provides lower

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layer network support for the local device to interact with the monitoring server" (Column 4, lines 21-23). The data access network "preferably comprises a common or private bi-directional telecommunications network (e.g., PSTN), a cable-based telecommunications network, a LAN, a WAN, a wireless network, coupled with or overlaid by a TCP/IP network (e.g., the Internet or an intranet)." (Column 4, lines 24-29).

The applicant respectfully points out that the monitoring server (130) in the '298 Haituka patent is not within the data access network. In addition, the applicant respectfully states monitoring server in the '298 Haituka patent does not execute a monitoring application that performs any of the following requirements of Claims 1 and 18 of the present application; captures all request packets transmitted from network users, captures all response packets transmitted from network services and filters the captured packets to extract usage monitoring data. The monitoring server merely serves as the recipient of information transmitted from the client application of the host device. Once it acquires this data the monitoring server performs an operation to determine what information should be sent to the client application.

Additionally, the applicant respectfully points out the data access network in the '298 Haituka patent does not teach or suggest a gateway device. More specifically, no mention is made of gateway device, or any other device at the network access point, that captures all request packets transmitted from network users, captures all response packets transmitted from network services and filters the captured packets to extract usage monitoring data.

The '298 Haituka patent teaches a monitoring application that performs primarily at the client level. The client application must be executed at the client or host level, as described at Column 7, lines 12-20. This requires that the client application be installed at the local device or operable from the local device. In contrast, the present invention requires no additional applications be installed at the local device, run on the local device or otherwise require any re-configuration of the local device. As such, the usage monitoring application of the present application is completely transparent to the local device. While in the '298 Haituka patent the

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local device must be "aware" of the client application, in that, the application must have been installed during manufacture of the device, during use of the device at the instigation of the user or may occur automatically, such as spyware, as a consequence of other processes described in '298 Haitzuka at Column 7, lines 13-16). The fact that the monitoring application is transparent, not alone to the local device user but also to the local device itself, is a novel feature of the present invention. It allows for the usage monitoring to occur inconspicuously to the local device user and the local device.

In the present invention the usage monitoring application is executed at the gateway device, which is disposed at a network access point. Such execution at a gateway device at the network access point allows for the usage monitoring application to monitor multiple network users simultaneously. The monitoring of multiple network users at the network access point level of the network is a novel feature of the present invention. This feature allows the application to aggregate network usage data amongst all the users who access through the gateway device or any segment of the users who access through the gateway device. As described in the present application, the user of the usage monitoring module may desire usage information from only a certain age profile of network users or users who only access certain networks (i.e., websites or the like).

In the '298 Haitzuka application usage monitoring occurs at the local device as implemented by the client monitoring application. The capturing and filtering of usage monitoring data is performed at the local device level and the usage data is then subsequently transmitted to the monitoring server via the data access network. The '298 Haitzuka neither teach nor suggest capturing and filtering of network usage data beyond that which is captured and filtered at the client monitoring application. The data access network provides the local device access to the network and the monitoring server provides access to various storage units and, as previously noted, performs an operation to determine what information should be sent to the client application. Neither the data access network nor the monitoring server in the '298 Haitzuka patent perform capturing of data and filtering of usage monitoring data.

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In addition, as claimed by independent Claim 22 of the present invention, the '298 Haitzuka patent does not teach or suggest a method by which the gateway device disposed at a network access point captures a transmitted data packet, determines if the transmitted data packet is a user generated request data packet and stores the packet in first database if such a determination is confirmed. The Examiner rejects Claim 22 by relying on Column 6, lines 54-61. However, this referenced portion of the '298 Haitzuka patent directly refutes a teaching or suggestion that a determination of user generated data packet is performed at the gateway device. That portion of the specification teaches that the client monitoring application sends feedback information to the monitoring server detailing user interaction with data received by the client monitoring application and the subsequent summarization and classification of the feedback information by the monitoring server prior to storage in the related data stores. The applicant does not appreciate how this portion of the '298 Haitzuka patent teaches or suggests determination, at the gateway device, of whether a data packet is user-generated and the subsequent storage of the data packet in a database if the determination is positive.

In addition, the dependent claims that depend from Claim 1, specifically Claims 3-17, the dependent claims that depend from Claim 18, specifically Claims 20-21 and the dependent claims that depend from Claim 22, specifically Claims 23-28 add further limitations to the independent claims and, as such, as a matter of law, if the independent claim is found patentable so too should the accompanying dependent claims.

As such, applicant respectfully submits that independent Claim 1, Claim 18 and Claim 22 which have been rejected under 35 U.S.C. § 102 (e), as well as the dependent claims that depend there from, are not anticipated by legal standards and, are thus, patentable.

The '298 Haitzuka Patent Does Not Teach or Suggest a Method for Navigational Sequence Usage Monitoring

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The Applicant fails to appreciate any teaching or suggestion within the '298 Haisuka patent of a method for navigational sequence usage monitoring.

Navigational sequence usage monitoring is described in the present invention as usage monitoring of a predetermined number of network addresses if a particular network address that has been designated as a network addressing requiring navigational sequencing is identified at the network access point. As such, the '298 Haisuka patent provides no teaching or suggestion of this highly specific method of monitoring network usage.

The Examiner relies on various sections of the '298 Haisuka patent to illustrate a teaching of each step of independent Claim 34 of the present invention. Applicant fails to appreciate how these references relate to the steps of the claim. For example, the Examiner relies on Column 2, lines 9-13 which describes basic TCP/IP protocol logic for issuing a HTTP message to request a web page using a URL. No teaching is apparent from this reference of a method of designating a network address as an address that requires navigational sequencing. In addition, the Examiner relies on Column 2, lines 2-5, which provides a general summary of an on-line monitoring and Column 6, lines 54-61, which describes the client monitoring application sending feedback information to the monitoring server whenever the client requests or accesses data from a web server. These references provide no teaching or suggestion of the specific step of Claim 34. Specifically, storing a predetermined number of network addresses that are accessed proximate the designated network address (i.e., either before or after the designated network address has been accessed) as a navigational sequence if the network address associated with the captured user transmitted packet is a designated network address.

In addition, the dependent claims that depend from Claim 34, specifically Claims 35-43, that add further limitations to the independent claim and, as such, as a matter of law, if the independent claim is found patentable so too should the accompanying dependent claims.

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As such, applicant respectfully submits that independent Claim 34, which has been rejected under 35 U.S.C. § 102 (e), as well as the dependent claims that depend there from, are not anticipated by legal standards and, are thus, patentable.

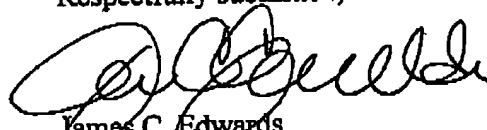
Conclusion

In view of the proposed amended claims and the remarks submitted above, it is respectfully submitted that the present claims are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicant's undersigned attorney to resolve any remaining issues in order to expedite examination of the present invention.

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It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.


Respectfully submitted,


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Sarah B. Simmons

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Date

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